

NOTES ON *NALLACHIUS AMERICANUS* (McL.)  
(DILARIDÆ, NEUROPTERA)

BY GEORGE C. STEYSKAL  
Detroit, Michigan

On July 8 and again on July 14, 1943, the writer took a single male of *Nallachius americanus* (McLachlan) on the leaves of a shrub a couple feet from a large long-dead tree standing in his neighbor's yard in Detroit, Michigan. The July 14 specimen was sent to F. M. Carpenter, who has kindly confirmed the determination. On June 28, 1944, six females and fourteen males were taken around the same tree and on July 1, 1944, five more males, making a total of six females and twenty-one males. The males were found in 1944 hovering close to the trunk or clinging to it, at distances of four to as much as twenty feet from the ground. The females were not seen in flight but were taken with difficulty from the trunk at the edge of loose bark at heights of six to ten feet. All specimens were taken at dusk; none was seen during several midday visits to the tree.

Inasmuch as Carpenter in his revision of the hemerobioid families of the Nearctic region (1940, Proc. Amer. Acad. Arts Sci. 74 (7):193-280) lists but two males and three females and since our additional material exhibits certain variations from the previously known material, the following notes are offered to assist in defining the range of variation in the species.

The length of the fore wing varies in the males from 4 mm. to 5.5 mm. (allotype ♂, 4 mm.) and in the females from 5 mm. to 6 mm. (holotype ♀, 5 mm.). The larger specimens have the greater number of pectinations in the male antennæ and the more extensive wing venation.

The pectinations of the antennæ of the males vary from seven to ten in number as follows, the minus sign indicating that the first (proximal) pectination is but one-half or one-third the length of the second one. One spm. with 7 pectinations, one with 8—, 7 with 8, 5 with 9—, 5 with 9, one with 10—, and one with 10.

The venation of the wings is rather uniform, but varies from

Carpenter's figures of the types (l.c., p. 273, fig. 73A ( ♀ ) and fig. 73B ( ♂ ) as follows:

a) Vein  $R_1$  in all specimens has from three to five terminal "twigs" in the fore wings and three in the hind wings.

b) The gradate veinlet between  $R_1$  and  $R_s$  near the tip of the fore wing in fig. 73A is lacking, but one is present a little farther proximad between  $R_1$  and  $Sc$  in all but one wing of one male, as well as one or more less distinct ones near mid-wing.

c) There are typically two gradates between  $R_1$  and  $R_s$  in the fore wings, usually in the vicinity of the middle forks of  $R_s$ , as in fig. 73A. The distal one is lacking in both wings of two males (as in fig. 73B) and in one wing of one male. Three females have a third gradate in one wing and one female has four (2+2) in one wing and three (2+1) in the other. Two males have a third gradate in one wing and one male has 2+1 in one wing and 3+1 in the other. In the hind wings two is also the typical number. There are three in one wing of two females and one male. One male lacks them altogether, three males lack them in one wing (the other wing having two gradates in one specimen and one in the other), and one male has two in one wing and one in the other.

d) In the fore wing of each specimen there is a gradate between MA and MP at approximately mid-length of MP and usually very near or even continuous with the one between MP and  $Cu_1$ .

e) The crossveins between the bases of MP and  $Cu_1$  of the fore wings of each specimen are as in fig. 73B (male).

f) In the hind wing of each specimen there is a gradate between MA and MP near mid-length of MP and approximately opposite the one between MP and  $Cu_1$ , which latter gradate was not found duplicate as in fig. 73B.